Remarks

Reconsideration of the application and allowance of all pending claims are respectfully requested. Claims 1-40 remain pending.

In the Office Action dated April 9, 2003, claims 1-40 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In particular, it is stated:

> The claims contain the limitation calling program and callee program coexist within a single executable module but have different machine context organizations....Questions arise as to how this single module is able to execute on a particular machine if the module is in fact designed for multiple machine contexts. Clearly some of the instructions or data formats must not be executable on the particular machine, which would make the module inoperative. Therefore, enablement is lacking for this limitation.

Applicants respectfully disagree with the above statements. Specifically, applicants respectfully disagree with "clearly some of the instructions or data formats must not be executable on the particular machine, which would make the module inoperative." Applicants respectfully submit that a single module having different machine context organizations is operable and is described in applicants' specification. In particular, it is explicitly stated in applicants' specification that the machine to execute the single executable module supports a set of compatible architectures.

> The communications capability pertains generally to a set of compatible architectures, e.g., a small architecture and a large architecture, which is upward compatible with the small architecture. The small architecture uses short registers, and the large architecture uses long registers, which are high-order extensions of the short registers in the small architecture (which are also addressable as short registers in the large architecture, for upward compatibility). The short registers are equivalent to the low-order portions of the long registers. (page 6, lines 1-10 of applicants' specification)

The compatible architectures are supported by one machine. This is described in applicants' specification as follows. It is stated on page 6, lines 17-22, that one example of a computing environment incorporating and using the communications capability of the present invention supports multiple architectures including a short register architecture and a long register architecture, as well as appropriate instructions to manipulate the architectures. It is further stated in applicants' specification that the programs having different machine context organizations comprise a single executable module (e.g., p. 22, lines 14-17). Thus, the single executable module having different machine context organizations is executable on a machine that supports multiple architectures.

Therefore, it is clear that the module is operable. For instance, the module is operable on a machine, described by applicants, that is capable of supporting multiple architectures. Thus, applicants respectfully submit that the "questions [that] arise as to how this single module is able to execute on a particular machine, if the module is in fact designed for multiple machine contexts" are addressed in applicants' specification.

Moreover, applicants' invention is not directed to creating the single module, but rather applicants' invention, in one aspect, is directed to communicating between programs having different machine context organizations, whether the programs are in one executable module or not. This communications capability, which is what is claimed by applicants, is described in detail throughout applicants' specification. For example, on page 8, lines 6-19, it indicates that in order for programs to communicate with one another, a linkage design is utilized that provides correct linkage between the programs. It states that, in one instance, the design includes a program attributes table, which lists various programs and their associated attributes. It then goes on further to describe how this table is created and consulted at compile time. Further, on page 9, lines 1-15, it describes how the attribute is employed, for instance, in determining which of a plurality of saveareas is to be used to hold information relating to a calling program when it calls a callee program.

Yet further on page 11, lines 5-9, it further reiterates that the provision of an attribute that indicates the width of the registers used by a program and the provision of various savearea layouts enable the communications linkage between a caller program and a callee

program to be determined at compile time. It is this determining of which savearea layout of a plurality of savearea layouts and the selecting of a linkage service to enable programs having different machine context organizations to communicate that is claimed by applicants and described in detail in applicants' specification. Thus, applicants respectfully submit that their claims are enabled by the teachings of the specification.

In addition to the above, claims 1-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. In particular, claims 1, 11, 21 and 22 are rejected as being incomplete for omitting essential steps. It is stated "the omitted steps are steps pertaining to how the calling and callee programs are made to exist within a single executable module and communication while the said programs are of differing machine context organizations." Applicants respectfully disagree with the above.

First, applicants' invention is not directed to making the calling and callee program co-exist within a single executable module. Instead, applicants' invention is directed to, in one aspect, communication between the calling and callee program when they do co-exist within a single executable module. Since applicants are claiming this communication, which is described in the claims, as well as in the specification, the claims are definite.

For example, claim 1 describes a method of communicating between programs having different machine context organizations, which includes determining, at compile time, a savearea layout to be used to save information relating to the calling program and selecting, at compile time, a linkage service to be used in communicating between the calling program and callee program. The ability to select the savearea layout from a plurality of savearea layouts and a linkage service from a plurality of linkage services enables calling programs and callee programs having different machine context organizations, regardless of being in a single executable module or not, to communicate with one another. The various details of how this is accomplished need not be presented in the broadest independent claims. Further details are described in the specification and provided in the dependent claims.

Similarly, the steps of how the linkage service relates to determining a savearea need not be described in claim 1. These details are provided in the specification and are further claimed in dependent claims (e.g., dependent claim 5).

Based on the foregoing, applicants respectfully request withdrawal of the §112 rejections and respectfully request allowance of all pending claims.

Applicants gratefully acknowledge indication that the prior art rejection of the previous Office Action has been withdrawn.

Applicants urge the Examiner to contact applicants' undersigned representative should the Examiner still have concerns regarding this application.

Respectfully submitted,

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